

In the Claims:

1.(currently amended) Apparatus for ensuring receiving duplicate data received from transmitted without awaiting acknowledgement over redundant paths of a data transmission network and transmitting the data for storage is stored on a storage device arranged to provide a write confirmation message without the introduction of any errors, the apparatus comprising

a hitless switch arranged to realign the duplicate data and select one of the duplicate data,

a buffer; and

a buffer controller connected to [[a]] the storage device and the buffer,

wherein the buffer controller is arranged to store a copy of the selected data is stored in the buffer before and after transmission of the data to the storage device; and

wherein the buffer controller is arranged to delete the copy of the selected data is deleted from the buffer only after a corresponding write confirmation message is received from the storage device at the controller.

2.(Original) Apparatus as claimed in claim 1, wherein the data transmission network comprises a link with a low bit error rate.

3.(currently amended) Apparatus as claimed in claim 1, wherein the redundant paths of the data transmission network comprises first and second diversely routed paths.

4.(Original) Apparatus as claimed in claim 1, wherein the data transmission network comprises an acknowledgement free link.

5.(Original) Apparatus as claimed in claim 1, wherein the storage device is located at a remote location from the buffer.

6.(currently amended) Apparatus as claimed in claim 1, wherein the copy of the data is re-transmitted to the storage device from the buffer in response to a retransmission request from the storage device.

7.(currently amended) Apparatus as claimed in claim 1, wherein the buffer stores an ID number with the copy of the data being stored in the buffer.

8.(Original) Apparatus as claimed in claim 7, wherein the ID number is transmitted to the storage device.

9.(Original) Apparatus as claimed in claim 7, wherein the ID number identifies which data to delete from the buffer.

10.(Original) Apparatus as claimed in claim 7, wherein the ID number identifies which data to retransmit from the buffer.

11.(Original) Apparatus as claimed in claim 1, comprising two buffers, two controllers and two separate storage devices.

12.(Original) Apparatus according to claim 11 further comprising a communications link from a first controller to a second controller.

13.(currently amended) Apparatus as claimed in claim 12 arranged to use wherein the communications link to carry carries write confirmation messages from one controller to the other.

14.(currently amended) Apparatus as claimed in claim 12 arranged to use wherein the communications link to carry carries write failure messages from one controller to the other.

15.(currently amended) Apparatus as claimed in claim 12 wherein the communications link is arranged to carry carries data lost messages from one controller to the other.

16.(Original) Apparatus as claimed in claim 15 wherein the communications link is arranged to carry a further copy of data, transmitted in response to a data lost message.

17.(Currently amended) A method for ensuring of receiving data transmitted without awaiting acknowledgement over redundant paths of received from a data transmission network and transmitting the data for storage is stored on a storage device arranged to provide a write confirmation message without the introduction of any errors, comprising the steps of
using a hitless switch arranged to realign the duplicate data and select one of the duplicate data.

storing a copy of the data in a buffer,
transmitting the data to [[a]] the storage device, writing the data to the storage device, and
deleting the data from the buffer only after receiving in response to a corresponding write confirmation message from the storage device.

18.(Original) A method according to claim 17 further comprising the steps of retransmitting the data in response to a retransmission request from the storage device.

19.(currently amended) A method according to claim 17 further comprising the step of storing an ID number in the buffer, corresponding to the copy of data being stored in the buffer.

20.(Original) A method according to claim 19 further comprising the step of transmitting the ID number to the storage device.

21.(Original) A method according to claim 19 further comprising the step of utilizing the ID number to identify which data to delete from the buffer.

22.(Original) A method according to claim 19 further comprising the step of utilizing the ID number to identify which data to retransmit from the buffer.

23.(Original) A method according to claim 17 further comprising the step of sending a signal to the data transmission network to stop sending data.

24.(Original) A method according to claim 17 further comprising the step of sending a message from a first storage device, which has stored the data correctly, to a second storage device, to indicate the data has been stored correctly.

25.(Original) A method according to claim 17 further comprising the step of sending a message from a first storage device, which has not stored the data correctly, to a second storage device to indicate that the write has failed.

26.(Original) A method according to claim 17 further comprising the step of sending a message from a first storage device, which has lost the data, to a second storage device to indicate that the data has been lost.

27.(Original) A method according to claim 17 further comprising the step of sending the data from a storage device which has not lost the data, to a storage device that has lost the data.

28 - 32. (cancelled)